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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,491

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Mauri Salmisuo

ST9032PCT(US)

4469

22203 7590 11/25/2008
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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

11/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,491	Applicant(s) SALMISUO ET AL.	
	Examiner Virginia Manoharan	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/26/05;07/31/06&01/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required. [The abstract in the PCT does not suffice].

The disclosure is objected to because the continuing data regarding the 371 should be incorporated into the specification

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 and 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). The phrase "characterized by that", in claim 1 is not a recitation of positive, manipulative, method/process steps. It is also unclear whether the limitation(s) recited prior the term "characterized by that " is to be regarded as part of applicants' invention?

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Applicants should recite claim 1 in Jepson -format (if intended) to delineate that which is an improvement in the art.

b). Claim 1, as recited, is ambiguous and appears to be incomplete. Claim 1 recites that “a mixture of steam and liquid” is produced from the falling film evaporator but recites at the same breadth of treating the steam and liquid separately, i.e., not as a mixture as initially claimed?

c).The inconsistent used of terminology is improper as it provides for ambiguity and confusion in the claims. For examples: “the falling film evaporation unit” in claim 6, last lines, as opposed to –“a falling film evaporation tube unit” in claim 6, line 1. Also, the former limitation appears to be broadening the latter limitation which is specific to an evaporation tube unit.

d).The phrase “means to”, recited in e.g., in claim 7, should be –means for—as the latter is the one authorized by 35 U. S. C. 6th paragraph.

e). Claim 6 recites the limitation "the evaporation product" in line 3. There is insufficient antecedent basis for this limitation in the claim.

f). It is unclear what is carried by the claimed first exit tube and the second exit tube within the context of the claimed invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Disclosure Of Admitted Prior Art as illustrated by US patent 3,875,017 and the International patent application WO 02/24299 in view of Lustenader et al (3,099,607) and Silvey (4,698,138).

The method for producing purified steam, wherein a feed stream of water is fed through a falling film evaporator to produce a mixture of steam and liquid, liquid being collected below the lower end of the falling film evaporator to form a volume of liquid, and a flow essentially consisting of steam being conducted upward in a spiraling rotational path; droplets being separated from said upward flow as broadly claimed in claim 1 is known as admitted by applicants and as illustrated by US patent 3,875,017; and the International patent application WO 02/24299. Note page 1, lines 11-34 thru page 2, lines 1-4 of the specification.

The method and device admitted to be known by applicants differ from the claimed invention in that claim 1, for example, recites “.. that the separated droplets form a reject stream, which is continuously removed from the process, and at least part of the collected volume of liquid is returned to the feed stream to form a circulating liquid...”; and further claim 6 recites “a recirculation tubing connecting the second exit tube to an inlet of the falling film evaporation unit”. However, to incorporate to the process and device admitted to be known by applicants the above recirculation tubing would have been obvious to one of ordinary skill in the art as it known to be done in the art as taught by Lustenader. That is, Lustenader shows in Fig.1 the line (32) wherein the collected liquid (15) is pumped via pump (33) thru line (18) to connect to the

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feedstream lines (16, 17) for recirculation back into the evaporator unit. Silvey 's disclosure at col. 7, lines 15-25 would at least be suggestive of the claimed step and device of continuously removing from the process the separated droplets form as a reject stream. As taught by Silvey the presence of the droplets can be deleterious to good fractionation and contaminate downstream processing.

Claims 2-3 and 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-5 and 9-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, claims 4-5 and 9-10 have not been further treated on the merits.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a). Nelson discloses a method and device where droplets of treated liquid fall into a pool of treated liquid.
- b). Wilkerson teaches a method and device of continuously removing deleterious droplets from the system.
- c). Ross discloses providing the separation of an entrained liquid from the vapor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Virginia Manoharan/
Primary Examiner, Art Unit 1797

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